UNDESCRIBED CRANE-FLIES IN THE PARIS MUSEUM (TIPULIDAE DIPTERA), AFRICAN SPECIES OF THE SUBFAMILY LIMNOBILIAE,

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TRIBE ANTOCHINI.

GENUS Ceratocheilus Wesché.

Ceratocheilus nigripleura, nov. sp.

Head gray; mesonotal praescutum buffy with three broad brown stripes; a broad black pleural stripe; wings subhyaline with five costal markings, the first at the humeral crossvein, the third and fourth at the ends of veins Sc_1 and R_1 and connected with one another along Rs and the base of R_{2+3} ; basal deflection of Cu_1 at the fork of M.

Female. — Length (excluding rostrum), 11,3 mm., wing 6,5 mm.; rostrum, about 7 mm.

Rostrum elongate, dark brown; palpi dark brown. Antennae black, twelve-segmented, the distal flagellar segments long-cylindrical. Vertex light gray with a linear dark brown mark; corniculus conspicuously light yellow. Vertex narrow, a little wider than the width of the corniculus.

Mesonotum light buffy brown, the praescutum with three broad dark brown stripes, the interspaces narrow; postnotum slightly darker medially. Pleura pale yellow, sparsely white pruinose; a broad brownish black stripe extending from the pronotum, which is also black, to the base of the abdomen, passing through the base of the halteres. Halteres pale brown, the extreme base and the large knobs dark brown. Legs with the coxae and trochanters pale yellow; remainder of the legs dark brown, covered with flattened bifid hairs. Wings subhyaline, a dusky tinge just before the

(1) Voir la note du même auteur sur la tribu des Limnobiini (Bull. Muséum, 1919, p. 606).

wing-apex; dark brown areas as follows: on crossvein h; at Sc_2 including both the costal and subcostal cells; at the ends of veins Sc_1 and R_1 , connected with one another by a broad V-shaped mark along the sector and the base of R_{2+3} ; at the tip of R_{2+3} ; less distinct seams along the cord, the outer end of cell i st M_2 , along vein Cu, especially at the point where the first anal vein breaks away; a large blotch just beyond the arculus and smaller clouds at the ends of veins M_3 , Cu_1 , Cu_2 and the Anal veins; the wing apex in cells R_3 and R_5 is pale; veins yellowish, brown in the darkened areas. Venation: Rs a little more than one-half the deflection of R_{4+5} and in alignment with it; cell i st M_2 narrow, the basal deflection of Cu_1 at its inner end.

Abdomen dark brown, the segments, especially the sternites, narrowly ringed basally with yellowish, the tergites similarly marked on the sides. Ovipositor with the valves exceedingly long and slender, the tergal valves horn-colored, almost straight, tapering gradually to the acute, slightly upcurved apices; sternal valves blackened with only the acute tips horncolored.

Habitat. — French Congo.

Holotype, Q, N'gomo, Bas Ogooué. 1906 (E. Haug).

Type in the Paris Museum.

Ceratocheilus nigripleuru requires comparison only with *C. lougirostris* Wesché (Southern Nigeria) which is described from a bleached specimen; this latter appears to be a smaller fly with fewer dark markings on the wing and with the venational details different.

There are now nine species in the genus *Ceratocheilus*, all but three being from the Ethiopian region. The genotype may be considered as being *C. coraigerum* (Speiser), the first species described by Wesché (as *wina-saupsoni*). Brunetti has recently (1918) erected a new genus, *Conithorax*, for two Indian species of *Ceratocheilus*.

TRIBE ERIOPTERINI.

GENUS Lecteria Osten Sacken.

Lecteria atricauda, nov. sp.

General coloration reddish brown, the praescutum with three broad dark brown stripes of which the median one is somewhat bisected by a pale line; legs with a distinct yellowish subbasal ring on the tibiae; wings rather dark brown, Cu_2 shorter than the deflection of Cu_1 ; abdomen long and slender, a broad lateral line and the ninth tergite black. Male. - Length 30.5 - 32 mm.; wing 18.5 - 20 mm.; abdomen alone, 25-26 mm.

Female. — Length 31.5 mm.; wing, 21.5 mm.; abdomen alone about 26 mm.

Rostrum and palpi dark brown. Antennae with the elongate basal segment dark brown, the remainder of the antennae light brown; basal flagellar segments globular to oval. Head dark reddish brown.

Mesonotal praescutum reddish brown with four darker brown stripes, the narrow intermediate pair indistinctly divided by a pale line; in the male paratype the median stripe is entire so that but three indistinct stripes are evident. Plenra light brown, sparsely gray pruinose. Halteres reddish brown, the knobs dark brown. Legs with the coxae and trochanters dull yellow; femora reddish brown with a very indistinct paler ring before the tip; tibiae reddish brown, the tips darkened, beyond the base with a distinct light yellow ring; tarsi broken. Wings tinged with rather dark brown, the costal cell even darker; small, indistinct brown clouds at the origin of Rs, fork of Rs and fork of R_{2+3} ; narrow and indistinct seams along the cord and outer end of cell 1 st M₂. Venation : As in L. africana but cell 1 st M₂ note quite so elongate; Gu_2 shorter than the deflection of Cu_1 .

Abdomen very long and slender, the tergites reddish brown, ringed caudally with dark brown and laterally with a broad black line that is interrupted at the base and apex of each segment; seventh tergite with a broad black median line; eighth tergite concealed beneath the seventh; ninth tergite tumid, shiny black; sternites dull yellow,' brighter laterally, narrowly ringed caudally with dark brown, on sternites five to seven with a linear black median mark; sternite eight brownish black, margined caudally with paler; ninth pleurite and the appendages reddish brown. Male hypopygium with the ninth tergite tumid, the dorsal surface with an indistinct shield-shaped depressed area on the posterior half, the caudal margin feebly notched medially; outer pleural appendage stout, dark colored, the acute apex short; inner pleural appendage stout, the apex broadly rounded.

Habitat. — French Congo.

Holotype, J, Libreville, 1901 (C. Chalot).

Allotopotype, \mathcal{Q} , 1899 (J. Boucher).

Paratopotypes, 1 d, 1 sex uncertain, with the allotype.

Type in the Paris Museum.

Lecteria atricauda is very similar in general appearance to L. africana Alexander (Belgian Congo) which has a distinct dark brown median line on the praescutum, no pale tibial band, a dark line on the mesonotal postnotum and on the mesopleura; wings paler with Cu_2 longer than the deflection of Cu_1 , the abdomen not so long and slender and without the blackened ninth tergite.

Lecteria africana nigrilinea nov. subsp.

In general structure and coloration resembling *L. africana* Alexander (Belgian Congo), differing as follows :

Praescutum reddish with a single rather broad blackish median line that becomes indistinct at about midlength of the sclerite; the long dark line on the pleura beneath the wing-root is dark brownish black; wings a little broader; venational details distinct: Rs a little shorter, cell M₁ smaller, Cu_2 shorter than the déflection of Cu_1 ; vein 2nd A very considerably shorter.

Male. - Length about 31 mm.; wing 19.2 mm.

Habitat. — Ivory Coast.

Holotype, J, Région de San Pedro. 1901 (G. Thoiré).

Type in the Paris Museum.

More material will be necessary to determine the true status of this insect.

Lecteria metatarsalba, nov. sp.

General coloration orange; legs brown, the femora with a yellow subterminal ring, the metatarsi largely white; wings faintly yellowich, with five brown spots, the first at the origin of the sector, the last in cell R_2 ; narrow paler brown seams along the cord and outer end of cell $1 \text{ st } M_2$.

Male. — Length 18.5 mm.; wing 14.8 mm.; abdomen alone, 13.2 mm.

Rostrum and palpi dark brown. Antennae with the first segment dark brown, sparsely gray pruinose; second scapal segment yellow; flagellum dark brown, the segments with very long verticils. Head dark brown, paler on the front and occiput, the vertex gray pruinose.

Thorax orange-yellow, without distinct darker markings, the praescutal interspaces with abundant delicate erect hairs. Halteres pale, the knobs dark brown. Legs with the coxae and trochanters pale yellow; femora brown, the tips dark brown, before the tips with a broad (about 1.8 mm.) yellowish ring; tibiae dark brown; metatarsi almost all white (3 to 3.5 mm.) with only the narrow tips and slightly broader bases black; remainder of the tarsi black; coxae with a few long hairs on the anterior face; legs covered with a long, semi-erect pubescence; metatarsus near the base with two long black spines concealed among the long hairs. Wings rather narrow, with a faint yellowish tinge, the anal cells almost hyaline; tip of the wing infumed; distinct dark brown spots at the origin of R_s , fork of R_s , at r, at the end of vein R_2 and a blotch in the end of cell R_2 ; narrow paler brown seams along the cord and outer end of cell i st M_2 . A tuft of about nine long black hairs on the posterior side of the wing-petiole and about six others along the 2nd anal vein, proximate of the level of the arculus. Venation : Sc extending to beyond r, very close to R_1 at the wing-margin; R_{2+3} about as long as R_s ; basal deflection of R_{4+5} very long and strongly arcuated at its origin; petiole of cell M_1 longer than either this cell or i st M_2 ; cell i st M_2 hexagonally subrectangular; basal deflection of Cu_1 before midlength of cell i st M_2 .

Abdomen rich velvety-orange, brighter near the lateral and caudal margins of the tergites, the latter ringed with pale. Hypopygium dark brown, the ninth tergite not tumid, its posterior margin almost straight across; pleurites long; pleural appendages two in number, the outermost more slender, slightly curved to the acute tip. Penis-guard long and slender, subtended by the two acicular straight gonapophyses which are subequal in size to the guard.

Habitat. — French Congo.

Holotype, J, environs de Brazzaville, 1907 (E. Rouhaud et A. Weiss).

TRIBE HEXATOMINI.

GENUS Eriocera Macquart.

Eriocera flavocincta, nov. sp.

General coloration black and orange; head and abdomen orange, the thorax, wings and legs largely blackish, the femora with a conspicuous orange-yellow subterminal ring.

Female. — Length, about 15 mm.

Rostrum and palpi brown. Antennae short, the first segment light brown, remainder of the antennae dark brown. Front between the eyes shiny brown; remainder of the head dark orange. Head small; frontal tubercle distinct, divided by a longitudinal furrow.

Thorax mostly black, the posterior two-thirds of the scutal lobes, the scutellum and postnotum dull yellow. Pleura black, the outer face of the fore and middle coxae largely, of the hind coxae entirely, reddish. Meso-

sternum reddish. Halteres black. Legs with the coxae as described above; trochanters dull reddish; femora black, the basal third of the fore femora and a broad subterminal ring on a all the femora orange-yellow; remainder of the legs black. Wings strongly infumed with brown, the wing-tips beyond the outer end of cell $1 \text{ st } M_2$ destroyed. Venation : R_{2+3} rather short, about equal to that portion of R_2 before r; inner ends of cells R_5 and $1 \text{ st } M_2$ in an oblique line; cell $1 \text{ st } M_2$ long and narrow; basal deflection of Cu_1 inserted beyond the fork of M.

Abdomen deep orange; sternites four to six darker colored, possibly a discoloration. The valves of the ovipositor are long and slender.

Habitat. - Ivory Coast.

Holotype, \mathcal{Q} , Bassin du haut Cavally, Danane, lat. 7° 15′ N., long. 10° 31′ 54″ West of Paris, 1919 (Ismael Bonnaure).

Type in the Paris Museum.